



Acupuncture For Posttraumatic Stress Disorder Rehabilitation

A pilot study shows that acupuncture may help people with Posttraumatic Stress Disorder (PTSD).



PTSD is an anxiety disorder that can develop after exposure to a terrifying event or ordeal in which grave physical harm was threatened or occurred. Traumatic events that may trigger PTSD include: military combat, violent personal assaults, accidents, and natural or human-caused disasters.

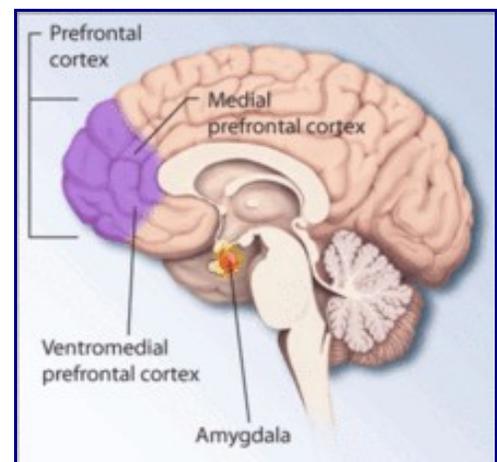
Neuroendocrinology

PTSD symptoms may result when a traumatic event causes an overactive adrenaline response, which creates deep neurological patterns in the brain. These patterns can persist long after the event that triggered the fear, making an individual hyper-responsive to future fearful situations. Most people with PTSD show a low secretion of cortisol and high secretion of catecholamines in urine, with a norepinephrine/cortisol ratio consequently higher than comparable non-diagnosed individuals. This is in contrast to the normative fight-or-flight response, in which both catecholamine and cortisol levels are elevated after exposure to a stressor. Brain catecholamine levels are low, and corticotropin-releasing factor (CRF) concentrations are high. Together, these findings suggest abnormality in the hypothalamic-pituitary-adrenal (HPA) axis.

Neuroanatomy

Three areas of the brain whose function may be altered in PTSD have been identified: the prefrontal cortex, amygdala, and hippocampus. In human studies, the amygdala has been shown to be strongly involved in the formation of emotional memories, especially fear-related memories.

The United States Department of Veteran's Affairs estimates that 830,000 Vietnam War veterans suffered symptoms of PTSD. The *National Vietnam Veterans' Readjustment Study* (NVVRS) found 15.2% of male and 8.5% of female Vietnam Vets to suffer from current PTSD at the time of the study. Life-Time prevalence of PTSD was 30.9% for males and 26.9% for females. Four out of five Vietnam veterans reported recent symptoms when interviewed 20–25 years after their wartime service.



Many veterans of the wars in Iraq and Afghanistan returning home have faced significant physical, emotional and relational disruptions. In response, the United States Marine Corps has instituted programs to assist them in re-adjusting to civilian life, especially in their relationships with spouses and loved ones, to help them communicate better and understand what the Veteran has experienced.

A clinical trial examining the effect of acupuncture on the symptoms of PTSD was conducted by Michael Hollifield, M.D., and his colleagues. The researchers analyzed anxiety, depression, and impairment in 73 people with a diagnosis of PTSD. The participants were assigned to receive either acupuncture or group cognitive-behavioral therapy over 12 weeks, or were assigned to a wait-list as part of the control group. The people in the control group were offered treatment or referral for treatment at the end of their participation.

The researchers found that acupuncture provided treatment effects similar to group cognitive-behavioral therapy; both interventions were superior to the control group. Additionally, treatment effects of both the acupuncture and the group therapy were maintained for 3 months after the end of treatment.

The limitations of the study are consistent with preliminary research. For example, this study had a small group of participants that lacked diversity, and the results do not account for outside factors that may have affected the treatments' results.

References

Michael Hollifield, Nityamo Sinclair-Lian, Teddy D. Warner, and Richard Hammerschlag, "Acupuncture for Posttraumatic Stress Disorder: A Randomized Controlled Pilot Trial." *The Journal of Nervous and Mental Disease* (June 2007).

The National Institute of Mental Health has more information on PTSD online at:
www.nimh.nih.gov/health/publications/post-traumatic-stress-disorder-ptsd/index.shtml